

to be a derivative of coal tar. Applicant respectfully traverses this rejection because the claim, read as a whole, clearly indicates the subject matter encompassed by the phrase "coal tar derivative".

Carbon dioxide is not a derivative of coal tar as used in this invention. Carbon dioxide is the result of combustion of any carbonaceous material, cracking of hydrocarbons, fermentation of carbohydrates, respiration, etc. In the case of this invention, none of the above is involved.

The coal tar derivative recited in claim 1 comprises the components listed in lines 3-11 and as described at least on page 4 of the specification with respect to United States Patent No. 3,221,615, which is incorporated by reference into this application. Accordingly, the entire phrase "coal tar derivative" is believed to be sufficiently defined in the claims and specification.

Claims 1-10 stand rejected under 35 U.S.C. § 103 for obviousness over United States Patent No. 3,221,615 to McGovern; United States Patent No. 3,261,269 to McGovern; or Re-examination Certificate No. 4,661,378 to McGovern (all incorporated by reference into the present application) in view of United States Patent No. 3,853,117 to Walaschek; United States Patent No. 3,897,380 to Walaschek; United States Patent No. 4,139,397 to Yan; United States Patent No. 5,180,428 to Koleas; Australian Patent Specification No. 211004; Australian Patent Specification No. 210541; an English language abstract of Soviet Union Patent No. 245638; an English language abstract of Japanese Patent No. 50-155524; an English language abstract of Japanese Patent No.

52-19855 or an English language abstract of EP 0422315. The Examiner is correct in noting that the three McGovern patents disclose the bituminous pavement rejuvenator of the present invention without the addition of an elastomer and that the secondary references disclose elastomers added to bituminous materials including coal tar and its derivatives.

Applicant recognizes the established use of natural and synthetic rubber (elastomers) in conjunction with certain coal tar compositions for paving applications. However, the present invention is not merely a simple combination of an elastomer with paving materials including coal tar derivatives. The claimed invention is a pavement treating (rejuvenating and/or conditioning) composition which is supplemented with an elastomer constituent. The claimed pavement rejuvenating and/or conditioning composition is very thin and has a viscosity similar to that of water. Such a composition, when applied to a paved surface, easily penetrates the pavement surface. Under typical pavement treating conditions, very little pavement treating composition remains on the surface of the pavement. Due to the use of the claimed elastomer, the composition to which elastomer is added more readily remains on the surface of the pavement. Moreover, the elastomer provides a mechanism for holding in place a top layer of fine aggregate such as sand on a paved surface. Thus the present invention is properly characterized as a pavement rejuvenating and/or conditioning composition containing coal tar derivatives and other ingredients to which an elastomer is added for coating and treating a pavement surface.

Four of the secondary references are directed to asphalt containing rubber (the Yan patent, AU'541, AU'004 and EP'315) and one reference is directed to a concrete seam filler (SU'638). The present invention is not an asphalt composition containing rubber. It is a pavement treating composition containing an elastomer for enhancing retention of the pavement rejuvenating and/or conditioning composition on a paved surface. Only the Walaschek patents, the Koleas patent and JP'855 relate to the surface treatment of pavement. The Walaschek and Koleas patents are all directed to emulsions of coal tar pitch or asphalt containing latex particles (an elastomer). The elastomer is added to the compositions disclosed in the secondary references to improve the solvent resistance and elasticity of a coal tar film cast from a coal tar emulsion or asphalt composition to help bridge cracks in the pavement resulting from expansion and contraction. Thus the secondary references only provide motivation to add an elastomer to improve the flexibility or chemical resistance of a coal tar derivative or extend its volume while maintaining its false body while diluting it with water.

The bituminous pavement rejuvenator recited in lines 2-11 of claim 1 has no need for the addition of an elastomer to improve its flexibility and/or chemical resistance. The bituminous pavement rejuvenator plasticizes the binder of the bituminous pavement wherein the pavement regains its ability to heal cracks under traffic and previously curled surfaces flattened under traffic and thus regains its cold flow properties. The bituminous pavement rejuvenator restores the

resilience of the pavement which has started to harden and to crack and prevents further cracking and even restores the ability for self healing of cracks in the existing pavement. Thus, there is no need to add an elastomer to increase the elasticity or chemical resistance of the bituminous pavement rejuvenator. Accordingly, one skilled in the art would not read the secondary references as a motivation to add an elastomer to a bituminous pavement rejuvenator which already acts to heal and protect pavement.

For all of the foregoing reasons, Applicant believes that claims 1-10 are patentable over the prior art of record and are in condition for allowance. Reconsideration and allowance of claims 1-10 are respectively requested.

Respectfully submitted,

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